

ABSTRACT OF THE DISCLOSURE

Inorganic and organic compounds containing fluorine can be produced, for example, from corresponding chlorine-containing compounds by chlorine/fluorine exchange using fluorinating agents. Monocyclic or bicyclic compounds containing at least two nitrogen atoms, at least one of which is incorporated into the ring system, can be used as catalysts or fluorinating agents for chlorine/fluorine exchange reactions to produce sulfonylchlorofluoride, sulfonylfluoride or a carboxylic acid fluoride. It is likewise possible to carry out HF addition to unsaturated carbon-carbon bonds or chlorine/fluorine exchange at carbon atoms. For example, monochloro or dichloro malonic acid esters can be converted to difluoro malonic acid esters. Work-up of the reaction mixture can be simplified by using suitable solvents which force the reaction mixture to exist in two phases.